

Invention description to certificate of authorship.

Laser interferometric device to determine non-linearity of an index of refraction of optical medium.

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Invention claims: The laser interferometric device for definition of non-linearity of an index of refraction of optical medium containing half-transmitting mirror placed between two optically bound reflection shields, installed perpendicularly to optical axis, one of which is optically bound to an output of the laser through a half-transmitting mirror, and another is bound to an input of an optical detector through a half-transmitting mirror distinguished of subjects, that with the purpose of a rise of the device sensitivity by increase of contrast of a interference pattern, in it two half-transmitting dividers are entered, each of which is installed between half-transmitting mirror and reflection shield perpendicularly to optical axis at  $l$  distance from the delimiter, defined from a relation:

$$l \geq \frac{c \cdot \tau}{2},$$

Where:

$c$  - speed of light.

$\tau$  - duration of pulse of laser radiation.